

XXX.—*On Birds from the Northern Portion of the Malay Peninsula, including the Islands of Langkawi and Terutau; with Notes on other rare Malayan Species from the Southern Districts.* By HERBERT C. ROBINSON, C.M.Z.S., M.B.O.U., Director of Museums, Federated Malay States, and CECIL BODEN KLOSS, F.Z.S., M.B.O.U., Curator, Perak State Museum.

(Plate X. and Text-fig. 6.)

THE collections of which an account is given in the present paper have in the main been obtained during the past two years in the northern portion of the peninsula, in part by ourselves and Mr. Seimund, and in part by native collectors attached to the Museums of the Federated Malay States, our ordinary duties not permitting any very continuous periods of field-work.

In view of the fact that no connected account has ever appeared of the birds of the districts in which we collected, we have thought it of interest to prepare a full list of all species obtained by us, specimens of which are preserved either in the Selangor and Perak Museums or, in a considerable number of cases, in the Natural History Museum, South Kensington.

In some few instances, on account of the special interest attaching to them, birds are mentioned which have not, as yet, been met with in the area covered by the present paper, but to these no serial number is attached.

It will be seen that the list contains some 270 species only, but it will probably be found ultimately that some four hundred or more are represented in the area treated of.

Our own collections were formed in very circumscribed localities, while our collectors were only in the country for between two and three months, and for various reasons did not spend more than a very small proportion of this period at any elevation on the hills, which were found to be singularly unproductive. Several species, therefore, obtained by other collectors in adjacent districts, or which might reasonably be expected to occur, have not as yet been procured, though it is

hoped that a projected expedition to the hills of Lakon will shortly explore the only promising district on the map of the peninsula which is still a *terra incognita* to the ornithologist.

Though, as mentioned above, the northern Malay Peninsula is but slightly represented in ornithological literature, collections of very considerable magnitude have been made within its limits; but, with one exception, no connected account of any of them has as yet appeared. It was not therefore to be expected that any actual novelties would be procured, and, as a matter of fact, the only new form described by us is a species of *Myiophoneus*, somewhat closely allied to those occurring both to the north and south of it.

The earliest specimens obtained from this area are probably those of Cantor, which passed with the collections of the Indian Museum to the Natural History Museum at South Kensington. In the middle of the last century, however, before the importance of locality was recognised, Cantor, like other naturalists, paid but little attention to the exact places of origin of his specimens, and as a result many of his acquisitions, now assigned to "Penang," where he was stationed, were certainly not obtained on that island, but were probably derived from native correspondents or hunters who secured them in the adjacent native states of Perlis and Kedah.

About 1876 Allan Hume turned his attention to the Malay Peninsula, and in the course of the succeeding five years accumulated an enormous mass of material throughout the entire length of the western Malay Peninsula, from the Tenasserim border to Singapore. The work was carried out by Davison and Darling, assisted by a considerable staff of natives, and so thoroughly did they accomplish it that to this day hardly a single species has been secured within the area covered by them which they had not also obtained. In their day the *Pax Britannica* was hardly an accomplished fact in the Peninsula, and they were therefore unable to penetrate into the more inland districts or to the mountains of the interior, whereas these localities have yielded a considerable crop of novelties to later explorers, of whom

Mr. Leonard Wray, the first Curator of the Perak Museum, deserves special mention.

In 1882 a paper was published on the Ornis of the Island of Salanga, also known as Tongka or Junk Zeylon, which must not be confused with the State of Selangor in the south of the Peninsula. This paper, which added little to our knowledge and contains numerous incorrect identifications, is duly mentioned in the synonymy.

From 1882 onwards the northern Malay Peninsula was left severely alone by the ornithologist until 1896, when the native State of Trang was visited by the famous American collector and naturalist, Dr. W. L. Abbott, of Philadelphia.

Dr. Abbott spent some considerable time in Trang during the years 1896 and 1897 and also in 1899, and in addition to forming a collection of mammals, which was the starting-point of the reinvestigation of that section of the Malayan fauna from a modern standpoint, he got together a series of over three thousand bird-skins. A few species have been described from this magnificent collection by Dr. C. W. Richmond and other specimens have been mentioned, but it is extremely unfortunate that no full account of it has as yet appeared, as, from information kindly supplied to us by Dr. Richmond, it is evident that it contains material of very great interest, including examples of several species not hitherto recorded from the Peninsular area.

It was largely with a view to securing examples of species which we knew Dr. Abbott had obtained in Trang, but which were desiderata to the local collections, that we decided to work that State, which had remained unvisited by a collector since 1900, though in 1902 Dr. Annandale passed through it from the eastern side and noted a few interesting birds, notably the Wood-Duck, *Asarcornis leucoptera*.

The following papers deal directly with that district, but, except in a few instances, we have not quoted them, but have confined the synonymy to a reference to the 'Catalogue of Birds' and to a recent paper by one of us which is quoted throughout as "Robinson":—

- HUME.—A first tentative List of the Birds of the Western Half of the Malay Peninsula. *Stray Feathers*, viii. pp. 37, 72, 151-163 (1879); *id. op. cit.* ix. pp. ? 103-133 (1880).
- MÜLLER.—Die Ornithologie der Insel Salanga. *Journal für Ornithologie*, 1882, pp. 353-448.
- RICHMOND.—Description of Three new Birds from Lower Siam: *Aethopyga anomala*, *Criniger sordidus*, *Turdinulus granti*. *Proc. U.S. Nat. Mus.* xxii. pp. 319-321 (1900).
- RICHMOND.—Description of Two new Birds from Trang, Lower Siam: *Stachyris chrysops*, *Oreocincla horsfieldi affinis*. *Proc. Biol. Soc. Washington*, pp. 157, 158 (1902).
- ROBINSON.—The Birds at present known from the Mountains of the Malay Peninsula. *Journ. Fed. Malay States Mus.* ii. pp. 164-222 (1909).

With very few exceptions the birds with which this paper deals were all obtained on the western side of the Malay Peninsula, southwards from the State of Trang, to the mouth of the Kedah River in the State of the same name, about thirty miles north of Penang, and including the islands of Pulau Langkawi and Terutau about seventy-five miles north of Penang and seven or eight miles west of the peninsular coast. We have given a brief account of the general characters of each collecting-station, which may be of interest as explaining the type of fauna met with, and have added the dates at which we visited each station, the season in the north of the peninsula being a much more important factor in the distribution of the bird-population than it appears to be in the central and southern sections.

As many of the places mentioned are hardly to be found on any ordinary atlas, the Editors have kindly allowed us to supply an outline map of the Peninsula (text-fig. 6, p. 663), indicating the majority of the States and the general natural and political features of the country, the latter of which have been much modified by the Anglo-Siamese treaty of 1909.

Starting from the south the first locality from which we have obtained specimens dealt with in the present paper is *Kuala Kedah*, the mouth of the Kedah River, the word "Kuala" being the Malay for the mouth of a river or, equally, for the confluence of two streams.

This locality was visited by Mr. Seimund and myself

Text-fig. 6.



Sketch-map of the Malay Peninsula.

towards the end of November 1907, on our way to Alor Stah, the capital of the State, which is situated some few miles upstream. The river here flows through flat and highly cultivated country, and embouches on a very shallow sea—so shallow that vessels drawing more than ten or eleven feet of water cannot enter the river at any state of the tide.

The shore on each side of the river-mouth is fringed by very extensive mud-flats, which were frequented at the time of our visit by considerable numbers of shore-birds of several species. Mr. Seimund obtained a considerable number which are noted in the systematic list, but amongst those not secured were observed Pelicans, probably *Pelecanus philippinensis*, the Smaller Adjutant (*Leptoptilus javanicus*), the White Ibis (*Ibis melanocephala*), and the exceedingly rare *Pseudotantalus cinereus*, which we have come across on several occasions all along the peninsular coast, but of which we have succeeded in obtaining only one specimen.

*Pulau Paya*.—This island is one of a small group a few miles south of Langkawi, between that island and Kuala Kedah. We landed on it for a few hours in December 1907. It is of small size, of no great elevation, and is covered with the usual low jungle. We obtained nothing of any interest on it, only the inevitable Koel (*Eudynamis honorata*) and the Drongo Cuckoo (*Surniculus lugubris*).

*Pulau Langkawi*, which we visited for a few days in November and December 1907, and on which our collectors spent more than a month at the commencement of 1909, is a large island with a maximum length east and west of about twenty miles and a breadth of about ten in a north-and-south direction. The coast is, however, much indented, and there are innumerable off-lying islands ranging in size from the merest rock to one, like Pulau Dayang Bunting, some ten or twelve miles in extent.

The island is extremely rugged in character, though in the neighbourhood of the two principal villages, Kwah and Kuala Malacca, there are considerable areas of flat land devoted to orchards and to the growing of rice. There is also a good deal of cultivation on the north coast, which we

did not ourselves visit, but where our collectors stopped for some time. Elsewhere the country is very mountainous, the highest hill, Gunong Raya, rising to nearly three thousand feet, while there is a range of precipitous mountains in the north-west corner well over two thousand feet.

The geological formation is in the main limestone, though schists and probably granites occur. In many places the rocks come sheer down into the water and are much undercut by the waves, forming small caves and recesses overhung by the most luxuriant vegetation. The flora of the island is very peculiar and markedly different from that of the more southern parts of the Peninsula and is extremely rich in orchids, among which may be mentioned a very beautiful *Cypripedium*, snow-white in colour (*Cypripedium niveum*). A handsome yellow Balsam (*Impatiens mirabilis*) is also met with here.

Being separated from the mainland by a strait only some ten miles in breadth, which nowhere exceeds ten fathoms in depth, neither Langkawi nor Terutau harbour any peculiar species of birds, though a Hawk (*Spizaëtus nipalensis*) was obtained which has not as yet occurred on the adjacent mainland. The mammals, however, shew a slight amount of differentiation from the continental forms and have therefore attained the honour of names of their own. Of these the most interesting perhaps is a small Pig (*Sus jubatulus* Miller), which is very abundant and causes much damage to the rice-fields and plantations.

One of the most famous features of the Langkawi group is a lake of fresh water some forty or fifty feet deep, which is found on one of the smaller islands to the south-west. It is an almost circular piece of water perhaps a quarter or a third of a mile in diameter, lying in a cup-shaped hollow at the top of a small hill, and probably owes its origin to the subsidence of the roof of one of the caves with which the limestone formation is always honeycombed. The water is of a translucent milky-blue, contrasting well with the deep green of the jungle by which the lake is surrounded, and making a scene of extreme beauty, which is worth travelling

far to see. The floor of the lake must be some considerable height above sea-level, at least forty or fifty feet, but we had no means of ascertaining this with any exactitude. The lake is said to be inhabited by a white crocodile, which is, however, of benignant disposition and does not attack human beings.

*Terutau* lies north of Langkawi, from which it is separated by a channel about four miles in minimum breadth. In area it is considerably smaller than Langkawi, being roughly about sixteen miles long by about four in maximum breadth, the longer axis running north and south. Its surface is extraordinarily rugged and there is little or no cultivation on it, and but few permanent inhabitants, the majority being merely fishermen, who visit the island for the six months' calm season and live in one or two sheltered bays on the east coast.

The west coast, exposed as it is to the full force of the S.W. monsoon, is quite uninhabited. At the south end of the island the coast is sandy and fringed with Sheoaks or Casuarinas, but on the east, where the sheltered waters permit the growth of mangroves, it is muddy, while the west is almost sheer rock. Like Langkawi, *Terutau* is mostly clothed with thick jungle to the summit of the highest hills, which are slightly lower than those of the first-mentioned island, but on the east side there is a small extent of open ground which is pastured by buffaloes brought over from the mainland. They are now almost feral. We stopped at the south end at Telok Udang, or Prawn Point, for a day or two in December 1907, and also for a few days at a small but excellent anchorage on the east side marked on the charts as "Wanderer Bay." Our collectors also stopped at the same localities for nearly a month in March 1909.

The birds of *Terutau* are identical with those of Langkawi, but the mammals are slightly different, the larger Mouse Deer, as is very often the case with the insular forms, especially presenting a marked change in coloration, while the common Palm-Squirrel is also distinct. In addition the island boasts of several Rats, a peculiar Porcupine, and a large Flying-Squirrel which we were not so fortunate as to obtain,



though we secured examples of a new species of another genus of the latter group.

At the time of our visit both islands were under the suzerainty of Siam, Langkawi belonging to the vassal State of Kedah, while Terutau was under Setul. The inhabitants of Langkawi were almost exclusively Malay, while those of Terutau were mainly Siamese, or rather Sam-sams, a mixed race of Malay and Siamese origin, speaking the latter language. Both islands are visited during certain seasons by the Orang Laut, or Sea Gypsies, a people akin to, if not identical with, the Selungs of the Mergui Archipelago, who frequent the coast as far north as those islands. These people, however, are more commonly found on the Butang Group, which lies about twenty miles to seaward of Terutau and is otherwise uninhabited. We were not so fortunate during the brief time at our disposal as to meet with any of these interesting folk.

Since the date of our visit Langkawi, as part of Kedah, has passed under the protection of Great Britain by the Anglo-Siamese treaty of 1909, while Terutau, as an island frequented by Siamese-speaking people, still remains an intrinsic part of the Siamese dominions.

We left Penang for Trang on November 25th in a small and crazy Chinese steamer, much overloaded with material for the railway now under construction from the port of Trang across the Peninsula to join the main line from Singapore to Bangkok, as provided by the Anglo-Siamese Treaty. After a brief stop at two small ports in the State of Perlis, Lunghu and Sungei Opis, which are mainly concerned with the shipment of pepper, we arrived at the mouth of the Trang River about 5 p.m. on November 26th. The navigation along this coast is exceedingly intricate, no charts being at present in existence, and within the last few months several wrecks have taken place, sunken rocks and shoals being very numerous. The scenery is extremely picturesque, as the course lies through an archipelago of lofty limestone islands of strange outline, covered with rich vegetation and fringed with white coral beaches. Arrived at the river's mouth, we promptly stuck on the bar, but as the tide was rising soon

got off and proceeded up the river in the dusk. We arrived at the wharf in the dark, while the rain, which had been falling more or less ever since we had left Penang, settled down into a regular downpour. By some misunderstanding, the Siamese official who had been detailed to await our arrival was not in attendance, and it was some considerable time before we could find a roof to cover us, and then only owing to the kindness of the resident Railway Engineer, Mr. Knight, into whose house we burst somewhat unceremoniously.

Kantan, as the port of Trang is called, is a place of recent origin and owes its existence entirely to the fact that it is the furthest point up the Trang River which can be reached by the coastal steamers, and that it has, therefore, been selected as the Siamese official headquarters. At present it consists merely of the residences of the Governor and other officials and the various government offices, but in the near future it is destined to be a place of considerable importance, as the terminus of a railway which will shorten the distance between Europe and Bangkok by four or five days. The country round is, from the cursory view we had of it, uninteresting, consisting mainly of rice-fields and plains of coarse grass, with here and there low hills covered with secondary jungle.

Next day we interviewed the Governor's deputy and received numerous documents in Siamese, armed with which we started off up stream in a steam launch, even more crazy and ancient than the coaster that had brought us from Penang. After about three hours' laboured progress, partly up river and partly through canals cut across the bends, we arrived at a collection of huts and shops at the termination of a road. Here we transferred ourselves into gharries, and our belongings and servants into bullock-and-buffalo carts, and rattled off along a very fair road through the town of Tap-tien and for about three miles on the other side to a park or botanical garden, the property of the Governor, in which was a large house built some years ago for the accommodation of the King of Siam. There was also a very comfortable wicker rest-house, in which, after some argument with the guardians, we installed ourselves.

It had been raining hard ever since we arrived in the State, and it continued to rain for the next three days, much to our disgust, as we had nothing to do but watch the waters rise steadily in the rice-fields, rendering it quite impossible for us to travel on to our destination in the interior. The country round being covered with highly cultivated rice-fields, pepper-gardens, or orchard-land, was most uninviting, and yielded nothing of interest, though the common birds were different from those found in similar situations in Perak and Selangor. The Governor of the State, who had been apprised of our intended visit from Bangkok, but who was absent at the time of our arrival, returned to meet us, but the floods were so high that his motor-car had to be wheeled along the road by a squad of forty coolies. When he turned up, however, he proved most courteous and obliging, putting his country-house at Chong, our destination, at our disposal, and assigning another very comfortable house for the use of our collectors.

We eventually arrived at Chong, distant twelve or fourteen miles from Tap-tien, along a road which had been originally excellent but was now much damaged by the floods. It passed through very extensive padi-fields, in which much of the rice had been drowned out and would have to be replanted, and through pepper plantations and orchards, but as the road approached Chong we arrived at more undulating land, largely covered with secondary jungle. There were precipitous limestone hills in the distance, while to the north and south appeared hills of more considerable elevation up to 3000 or 4000 feet in height, forming the main dividing-range of the Peninsula or spurs of that range.

Chong itself, is a country-seat of the High Commissioner of the Monthon Puket and his subordinate, the Governor of Trang, who is his nephew. There is a large and comfortable plank house here which had been recently occupied by the Crown Prince of Siam. It was painted in broad vertical stripes of red and white, presenting a somewhat bizarre appearance. It was situated on a small hill in the centre of a large park, originally jungle, from which all the undergrowth had been removed, leaving only the larger forest trees, while the hill

on which the house itself stood was terraced. The grounds were maintained in excellent order by a gang of short-sentence convicts, on whom imprisonment did not appear to press very hardly.

This park proved an excellent collecting-ground for birds, especially for Bulbuls, Honeysuckers, and Flowerpeckers, which seemed to concentrate on the isolated trees growing there; so that they could be easily shot, and, what was more important, could be retrieved with much greater ease than in heavy jungle. Game, too, was abundant in the vicinity, and on one occasion a Kyang (*Cervulus muntjac*) strolled across the lawn with a pack of convicts in hot pursuit.

Hard by is one of the most famous waterfalls of the Peninsula, the Trang River falling over a broad shelf of rock for a perpendicular distance of about forty feet. The fall is not vertical, and the scene embowered in heavy jungle on both sides is one of extreme beauty.

Chong is actually at the foot of the main range, and a walk of six or seven miles along the road, excellently engineered but now largely destroyed by heavy rains and landslips, leads to the summit of the pass, which cannot exceed four or five hundred feet, dividing the State of Trang from the East Coast State of Patelung. The road at the summit passes through a narrow defile, which is guarded by a heavy loopholed timber fence and gate. A long day's journey brings the traveller to the Lower Patelung, and to the Inland Sea, but the route, which we have not as yet traversed, has been described by Annandale.

During our stay at Chong we ascended a mountain in the vicinity probably about 3000 feet in height, and obtained an excellent view of the higher mountains of Lakon to the north, which are over 5000 feet and as yet entirely unexplored. The hill we visited was, however, very unproductive in birds and yielded only one of any interest, viz. *Stachyris davisoni*.

After our departure from Chong our collectors visited several localities in the N.E. portion of the State towards Lakon, but for various reasons were unable to ascend any of

the hills. They obtained a considerable number of birds, but devoted themselves chiefly to mammals, of which they procured some very interesting specimens, including a new and very large species of Hog Badger (*Arctonyx dictator*), a white Leaf-Monkey, and a large series of a stump-tailed Macaque, which will not improbably prove to be new to science.

In conclusion, we must express our gratitude to the Siamese authorities, both in Bangkok and Trang, for permission to collect, and for facilities in the way of transport and permission to use the Government rest-houses, and more especially to the Governor of Trang and the District Officer of Chong.

Our thanks are also due to H.E. Sir John Anderson, G.C.M.G., High Commissioner of the Federated Malay States, who kindly obtained for us the requisite permission from the Siamese authorities, and to Sir William Taylor, K.C.M.G., Resident General, Federated Malay States, and Mr. E. W. Birch, C.M.G., Resident of Perak, for permission to travel outside the limits of our respective districts.

*List of Species.*

PHASIANIDÆ.

† 1. CALOPERDIX OCULEA.

*Caloperdix oculea* (Temm.); Grant, Cat. Birds Brit. Mus. xxii. p. 222 (1893).

This Jungle-Partridge is extremely rare in collections, and a female from Lam-ra, in the interior of Trang, is the only specimen that appears to have been obtained in the Peninsula during the last twenty-five years, with the exception of some collected by Dr. Abbott, also in Trang, which are now in the United States National Museum.

Practically nothing is known of the habits of the bird, except that it is an inhabitant of low-country jungle. It is evidently commoner in South Tenasserim and the north of the Malay Peninsula than it is in the south, as there are no examples of the species in the museums of Taiping, Kuala Lumpur, and Singapore.

† 2. *PAVO MUTICUS*.

*Pavo muticus* Linn. ; Grant, tom. cit. p. 371.

The collection includes three Peacocks from the interior of Trang.

The distribution of the Peacock in the Malay Peninsula is very curious. In suitable localities it appears to be common on both sides of the northern portion of the Malay Peninsula as far south as Kedah on the coast of the west side, and to extend down the Perak River nearly as far as Kuala Kangsar, the native capital of the State of Perak. With the exception of one dubious record from the borders of Selangor and the Negri Sembilan, it is not known with certainty from any other portion of the western slope of the Peninsula, for we regard the locality "Malacca" attached to specimens in the British Museum as entirely indefinite. On the eastern side the Peacock extends further south, and is known with certainty throughout Pahang, and probably occurs in North-eastern Johor in the Endau River basin.

In the Malay Peninsula these birds are not particularly shy, for they are hardly ever interfered with. Their favourite haunts are the courses of the larger rivers, and in the early morning they are often to be seen on the sand-banks of the Pahang River, while they lie up for the heat of the day in the thick vegetation that borders its banks and roost at night in the lofty trees.

† 3. *GALLUS BANKIVA*.

*Gallus gallus* Linn. ; Grant, tom. cit. p. 344.

Jungle-fowl were evidently fairly common in Trang on the little jungle-clad hills rising from the rice-fields, whence our men obtained several specimens. Most of the southern Malayan Jungle-fowl have the lower half of the ear-lappet whitish, but in these specimens the lappet is entirely red.

## TRETRONIDÆ.

+ [*SPHENOCERCUS SEIMUNDI*. (Plate X.)

*Sphenocercus* sp., Robinson, Journ. Fed. Malay States Mus. ii. p. 168 (1909).

*Sphenocercus seimundi* Robinson, Bull. B. O. C. xxv. p. 98 (1910).



H. Grönvold del et lith.

West, Newman imp.

SPHENOCERCUS SEIMUNDI ♂ & ♀.

This handsome Green Pigeon is very distinct from any species hitherto described, being most closely allied to *S. oxyurus* (Temm.) from the mountains of Sumatra, with which it agrees in having the bare space round the eye extending to the base of the bill. This character does not occur in any other member of the genus except in *S. apicicauda*, these two being also the only species that have sharply pointed tail-feathers.

From *S. oxyurus* the present form differs in having the wing-coverts edged with yellow, from *S. apicicauda* by its less acuminate tail-feathers, much darker coloration, and the presence of maroon shoulder-patches in the male, and from both species by its yellow and green, not cinnamon or chestnut, under tail-coverts. From *S. robinsoni* Grant, the other Peninsula species, it is at once separated by its pointed tail and naked lores, and from every species of the genus by its pure white belly.

Since the description of this fine species three more specimens, two adult males and a female, have been collected by our Dyaks in the same locality as the type, Semangko Pass, Selangor Pahang-border, about 2700 ft., where we have frequently seen the bird, but under conditions that generally rendered it impossible to obtain it.]

#### \* 4. BUTRERON CAPELLII.

*Butreron capellei* (Temm.); Salvad. Cat. Birds Brit. Mus. xxi. p. 32 (1893); Robinson, p. 168.

Lay Song Hong, Interior of Trang, January 1910.

This large Green Pigeon, though fairly common in the Peninsula, is not so well known as the species of *Osmotreron*, and does not afford the same amount of sport. It occurs in the interior of the country, nearly always in very high forest, and feeds on very lofty trees, so that it is generally rather difficult to get.

It is usually met with in very large flocks, and on one occasion, near Selama in North Perak, we came across one that at the lowest estimate must have numbered two or three hundred individuals.



† 5. TRERON NIPALENSIS.

*Treron nipalensis* (Hodgs.); Salvad. tom. cit. p. 34; Robinson, p. 169.

Fairly common everywhere, though less so than *Osmotreron vernans* and *O. olax*, and not forming flights to the same extent as those species. Numerous in Trang and also in Terutau.

† 6. OSMOTRERON BICINCTA.

*Osmotreron bicincta* (Jerd.); Salvad. tom. cit. p. 57.

Exceedingly rare in the Peninsula, though sporadically distributed, being recorded from Salanga (Tongkah), Kuala Selangor, and Malacca. In Trang a single specimen was obtained by our collectors.

The single bird we ourselves obtained was shot out of a flock of *O. vernans* at Kuala Selangor on the Selangor coast in December 1904.

† 7. OSMOTRERON VERNANS.

*Osmotreron vernans* (Linn.); Salvad. tom. cit. p. 60.

This, the commonest Green Pigeon in the Peninsula, is found everywhere throughout the country except in thick jungle and on the mountains.

† 8. MYRISTICIVORA BICOLOR.

*Myristicivora bicolor* (Scop.); Salvad. tom. cit. p. 227.

The White Nutmeg-Pigeon, the *rawa* of the Malays, like the other species of the genus, is rarely found except on small islands or among the mangroves in the immediate vicinity of the coast. On the small islands in the Straits of Malacca, notably Pulau Jarak, and on others on the east coast of Pahang, it is extremely common and affords very good sport, though for the table the bird is usually tough and tasteless. It was met with, though sparingly, on some of the outlying islands of the Langkawi group in February 1909.

COLUMBIDÆ.

† 9. COLUMBA PUNICEA.

*Columba punicea* (Blyth); Salvad. tom. cit. p. 306.

A female specimen obtained on the hills of Pulau Terutau

is the most southerly record for this species, which has not hitherto been found south of the island of Tongkah or Salinga, whence there are three specimens collected by Darling in the British Museum.

+10. *TURTUR TIGRINUS*.

*Turtur tigrinus* (Temm. & Knip); Salvad. tom. cit. p. 440.

Exceedingly common in open spaces throughout the Peninsula, but perhaps rather more abundant in the north, where there is a greater extent of suitable country.

+11. *CHALCOPHAPS INDICA*.

*Chalcophaps indica* (Linn.); Salvad. tom. cit. p. 514.

Another bird which is exceedingly numerous in all jungle except that of the swampy coastal tract, ascending the mountains to over 5000 feet.

The "apunai tana," as it is called by the Malays, is much trapped with the aid of a bamboo call-pipe, and is sometimes brought into the towns in large numbers for sale as food.

+*CALÆNAS NICOBARICA*.

*Calœnas nicobarica* (Linn.); Salvad. tom. cit. p. 615.

The Nicobar Pigeon is a migratory bird in the Straits of Malacca, and is apparently found on several islands, but only during the winter months.

We obtained specimens on Pulau Jarak in December 1904. Seimund met with it, though he failed to secure specimens, on Pulau Rumbia, one of the Sembilan Islands, in March 1909, and one of us spent a long and sultry afternoon stalking an old cock bird on a small but very steep islet in Wanderer Bay, Terutau, in December 1907. The old fellow was so wary that we only caught an occasional glimpse of his white tail, and never got a shot at him.

The species is probably found on Pulau Pisang, between Malacca and Singapore, but no specimens have been actually obtained from there, though we have had accounts of a wonderful "merpati mas" or "golden pigeon," which has been killed by flying into the lighthouse.

[To be continued.]